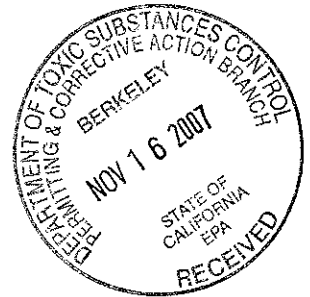


SOIL MANAGEMENT PLAN CENTRAL PLANT AREA

Former FMC Corporation Facility
1125 Coleman Avenue
San Jose, Santa Clara County, California



Prepared for:



1735 Market Street
Philadelphia, Pennsylvania 19103

Prepared by:



2000 Powell Street, Suite 1180
Emeryville, California 94608

November 2007

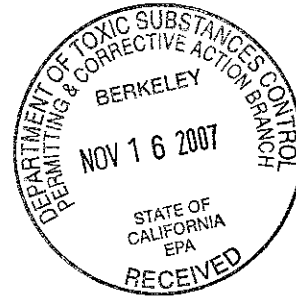
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Transmitted Via Overnight Delivery

November 14, 2007

Mr. Andrew Berna-Hicks
Hazardous Substance Engineer
State of California Environmental Protection Agency
Department of Toxic Substances Control
Northern California Permitting Branch
700 Heinz Street, Suite 200
Berkeley, CA 94710-2737



Re: Soil Management Plan
Central Plant Area
Former FMC Corporation Facility
1125 Coleman Avenue
San Jose, Santa Clara County, California

Dear Mr. Berna-Hicks:


Enclosed please find the final Soil Management Plan (SMP) for the Central Plant Area of the former FMC Corporation (FMC) facility located at 1125 Coleman Avenue in San Jose, Santa Clara County, California. The Central Plant Area was sold to the City of San Jose (City) on May 23, 2006 pursuant to an Agreement for Purchase and Sale of Real Property dated September 9, 2004.

This document has been prepared in conjunction with the Land Use Covenant for the property, which was recently entered into by the City and the California Department of Toxic Substances Control (DTSC). FMC originally submitted a proposed SMP to DTSC by letter dated August 4, 2006, with copies to the City. DTSC provided comments by letter dated October 30, 2006. The SMP was revised in response to those comments, and subsequently submitted as a draft to the City on June 1, 2007 and DTSC on June 20, 2007. Following receipt of DTSC comments on July 12, 2007, the SMP was again revised to reflect those comments, and a new revised draft was submitted to the City for comment via e-mail on September 14, 2007. Based on an e-mail from representatives of the City of San Jose dated September 26, 2007, no additional changes were required.

FMC

If you have any questions or require additional information, please contact me at the address above or (215) 299-6554.

Sincerely,

A handwritten signature in black ink, appearing to read "S.J. Tollin".

Shawn J. Tollin
Manager, Environmental Remediation
FMC Corporation

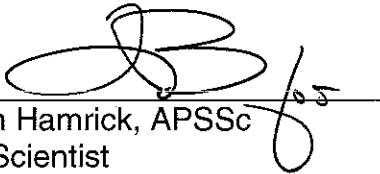
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Mr. Paul Krutko – City of San Jose
Mr. Ed Moran, Esq. – City of San Jose
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* Cover letter only

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Former FMC Corporation Facility
1125 Coleman Avenue
San Jose, Santa Clara County, California

Prepared by:

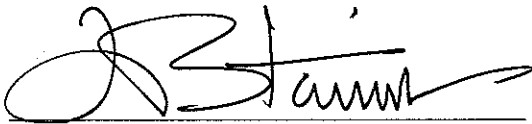


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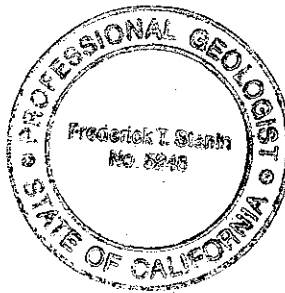


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LIST OF ACRONYMS

BAAQMD	Bay Area Air Quality Management District
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
Cal OSHA	California Occupation Safety and Health Association
Cal/EPA	California Environmental Protection Agency
CEQA	California Environmental Quality Act
CMS	Corrective Measures Study
COCs	Constituents of Concern
DCA	Dichloroethane
DCE	Dichloroethene
DPE	Dual Phase Extraction
DTSC	Department of Toxic Substances Control
FMC	FMC Corporation
FS1	Fluvial Sand Zone 1
FS2a	Fluvial Sand Zone 2a
FS2b	Fluvial Sand Zone 2b
HASP	Health and Safety Plan
ISCO	In-Situ Chemical Oxidation
LUC	Land Use Covenant
MCLs	Maximum Contaminant Levels
MTBE	Methyl tertiary-butyl ether
NPDES	National Pollutant Discharge Elimination System
RBTL	Risk-based Target Levels
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
SCVWD	Santa Clara Valley Water District
SVOC	Semivolatile Organic Compounds
TCA	Trichloroethane
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds
WTZ	Water Table Zone



1.0 BACKGROUND

This Soil Management Plan (Plan) for the Central Plant Area has been prepared and is submitted by FMC Corporation (FMC) for the former FMC facility located at 1125 Coleman Avenue, San Jose, Santa Clara County, California (the Central Plant Area portion of the former FMC facility is herein referred to as the “Central Plant Area” or the “Site”). As part of the corrective action process for the Central Plant Area, FMC submitted the *Central Plant Area Corrective Measures Study (CMS) Report* (Malcolm Pirnie, 2005b) to the State of California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) on September 22, 2005. The *CMS Report* presented an assessment of potential risks associated with residual chemical concentrations in soil, soil gas, and groundwater at the Central Plant Area.

Following its review of the document, DTSC transmitted comments from its Geological Services Unit on the CMS to FMC for response on November 23, 2005. These comments included the recommendation that FMC develop a Soil Management Plan for the Central Plant Area. In a letter dated December 1, 2005 to DTSC, FMC agreed to prepare and submit this Plan to DTSC “within three months following DTSC approval of the *CMS Report*.” DTSC approved the *CMS Report* as technically complete in a letter dated December 20, 2005. Following issuance of a public notice and a 45-day period for public comment, DTSC issued a Notice of Final Decision, dated April 20, 2006, approving the recommended final remedy as described in DTSC’s Statement of Basis and the *CMS Report*.

This Plan outlines management and mitigation measures to protect future workers based on existing conditions at the Central Plant Area, which are described in the *Central Plant Area Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Report* (Malcolm Pirnie, 2003b), the *Central Plant Area RFI Report Addendum* (Malcolm Pirnie, 2004a), and the *CMS Report* (Malcolm Pirnie, 2005b). These conditions are summarized in Section 2 of this Plan. Interim measures have been completed at the Central Plant Area to remove media (soil and shallow groundwater) with constituents of concern (COCs) above risk-based target levels (RBTLs) (Table 1-1) which are protective of construction/excavation workers. In the case of soil,



the excavations that were implemented as interim measures constitute the selected final corrective measure.

This Plan outlines the procedures for management of subsurface soils and groundwater that may be brought to the surface or to which construction workers may otherwise be exposed in the course of future work at the Site. This Plan also references the provisions of a Land Use Covenant (LUC)¹ with respect to the need to review with DTSC possible mitigation measures relative to potential vapor intrusion for protection of indoor office workers for any new buildings constructed in the restricted areas.

1.1 OBJECTIVES

The objective of this Plan is to provide a mechanism for continued protection of future Site workers and occupants during and following any Site construction and/or redevelopment activities. The specific Site management actions to meet this objective are as follows.

- Identify the location of the current Groundwater Extraction and Treatment System and associated conveyance piping, and groundwater monitoring and extraction wells, in order to protect their integrity.
- Present general health and safety guidelines (to be addressed in future Health and Safety Plans) for Site construction or maintenance workers who may be exposed to soil, soil gas and groundwater that may contain residual COCs.
- Summarize portions of the LUC that are relevant to management of soil, groundwater, and soil vapor generated in the course of future activities at the Site.

1.2 SITE SETTING

The 23.2-acre Central Plant Area is rectangular in shape and located in the City of San Jose, south of the San Francisco Bay and east of the City of San Jose/City of Santa Clara border (Figure 1-1). Relative to the Site, Coleman Avenue is located to the north, to the west is the Test Track Area (formerly owned by FMC and purchased by the City of San Jose), to the south is the Union Pacific Railroad property, and to the east is the newly-constructed Newhall Drive and industrial property currently owned by entities affiliated with Arcadia Development Company

¹ A LUC will be executed by the City of San Jose, as property owner, and DTSC, and recorded in the official records of the County of Santa Clara.

(location of FMC's former Plant 7 Area). The Norman Y. Mineta San Jose International Airport is located across Coleman Avenue north of the Central Plant Area. The closest residential area is located along Newhall Street, approximately 2,000 feet to the east-southeast of the Central Plant Area.

1.3 SITE HISTORY

1.3.1 Site Operational History

The Central Plant Area is part of the 99-acre 1125 Coleman Avenue property that was purchased from the City of San Jose in 1946. Prior to that time, the land was reportedly used for agricultural purposes. Most of FMC's operations at the Central Plant Area since 1951 were dedicated to the design, production, and testing of military tracked vehicles under United States Department of Defense contracts. Various types of vehicles with numerous uses were manufactured since about 1951. Production operations in the Central Plant Area ceased in 1997. On May 24, 2006, FMC sold the Central Plant Area property to the City of San Jose.

The principal operations at the Central Plant Area included machining, degreasing, heat treatment, plating, surface cleaning and preparation, and painting for the manufacture and modification of military tracked vehicles. Raw aluminum and steel were used to fabricate parts; machining required water- and oil-based coolants to cool the machine bits. These operations included the use of acid solutions (phosphoric and chromic), alkaline solutions, cyanide, metals, hydrocarbons (lubricating and cutting oil, mineral oil, and oil emulsions), paints, solvents (trichloroethene [TCE], 1,1,1-trichloroethane [TCA], methylene chloride, methyl chloroform, toluene, xylenes, and methanol), ethylene glycol, ethylene oxide, polyalkylene glycols, and polychlorinated biphenyls. The Department of Defense required the use of certain materials, including solvents and paints, through military specifications. In addition, diesel and gasoline fuel, along with motor oil, was stored and dispensed at the Central Plant Area for testing engines and road testing the vehicles.

Some waste streams and sludge were processed in a wastewater treatment plant at the Central Plant Area which was constructed in 1978 and began operation in 1979. The plant was primarily used for neutralizing acid and alkali waste, reducing hexavalent chromium, facilitating cyanide destruction, precipitating heavy metals, and removing solids from metal finishing and



electroplating wastes before discharging to the City of San Jose/Santa Clara Water Pollution Control Plant.

1.3.2 Site Corrective Action History

The RCRA corrective action process at the Central Plant Area has been conducted under a Corrective Action Consent Agreement (Consent Agreement) among FMC, United Defense, LP, and DTSC, effective January 2, 1996. Prior to the Consent Agreement, remedial activities were variously performed under permitting and regulatory requirements of DTSC, the United States Environmental Protection Agency (USEPA), the San Jose Fire Department, and the Santa Clara Valley Water District (SCVWD).

The corrective action process for the Central Plant Area included a RCRA Facility Assessment (RFA) prepared by DTSC to identify various units (subsequently listed in the Consent Agreement) and potential releases of hazardous waste or constituents requiring further investigation; a RFI to evaluate the presence, and if applicable, the nature and extent of any releases; and a CMS to identify, develop and recommend appropriate corrective measures to protect human health and the environment.

In a letter dated July 29, 2005, DTSC provided its determination that the *RFI Report* and *Vapor Intrusion Assessment* for the Central Plant Area were “complete, acceptable, and are...approved,” and requested that the *CMS Report* be submitted. DTSC’s letter approved the RFI Report, dated August 15, 2003 (5 volumes); the *RFI Report Addendum*, dated August 16, 2004; the *Soil Gas Investigation and Vapor Intrusion Assessment Report*, dated January 14, 2005; and the *Technical Memorandum-Additional Analysis for the January 2005 Vapor Intrusion Assessment*, dated July 14, 2005.

FMC submitted the *CMS Report* to DTSC on September 22, 2005. This report evaluated remediation alternatives and recommended specific measures to address the presence of COCs in soil, soil gas, and groundwater. DTSC reviewed the *CMS Report* and transmitted comments and recommendations to FMC in a letter dated November 23, 2005. These comments included a recommendation for preparation of a Soil Management Plan for the Central Plant Area. In responses submitted to DTSC in a letter dated December 1, 2005, FMC acknowledged that it would prepare a “stand-alone Soil Management Plan for the Central Plant Area addressing



management of contaminated media that might be encountered during future Site redevelopment and during future Site usage.” DTSC approved the *CMS Report* as technically complete by letter dated December 20, 2005.

1.4 PUBLIC PARTICIPATION AND REGULATORY STATUS

DTSC issued a Public Notice as to the availability of the *CMS Report* and other documents (Fact Sheet, Statement of Basis, Initial Study, draft Negative Declaration under the California Environmental Quality Act (CEQA), and the Land Use Covenant Implementation and Enforcement Plan), and held a 45-day public comment period from February 24, 2006 to April 10, 2006. DTSC also mailed the Public Notice and Fact Sheet to the FMC facility mailing list of approximately 183 persons. No public comments were received.

DTSC issued a Notice of Final Decision for Corrective Action Remedy Selection on April 20, 2006 (DTSC, 2006b) to approve the recommended corrective action remedy as described in the Statement of Basis and the *CMS Report*. A final Negative Declaration and CEQA Notice of Determination were filed with the Governor's Office of Planning and Research as part of the Notice of Final Decision.

All environmental investigations at the Central Plant Area have been conducted under DTSC oversight. DTSC will remain the lead regulatory agency for the Site.

1.5 CURRENT ZONING AND PLANNED SITE REDEVELOPMENT

Pursuant to Planned Development Zoning Ordinance No. 26958 adopted by the City of San Jose on September 2, 2003, the 1125 Coleman Avenue property has been zoned Planned Development to permit future commercial uses, including use for office/research and development, hotel, and retail purposes. A Conceptual Master Site Plan is included as Figure 1-2 taken from the *Final Environmental Impact Report* (EIR) (City of San Jose, 2003). A schedule for property redevelopment has not been set.

It is anticipated that the existing buildings will be demolished and removed. Redevelopment may include standard grading for construction of buildings, parking structures, and parking lots. Excavations for removal of foundation footings, replacement, and/or installation of underground utilities may be conducted. Redevelopment of the Site may include excavation of soil, construction dewatering if excavations below the water table are required as



part of the construction of new buildings, mitigation measures for new buildings that may be constructed in specific areas of the Site, and construction of new buildings and other structures. Therefore, soil, soil gas, and groundwater management and mitigation procedures are included in Section 5.0 of this Plan.



2.0 ENVIRONMENTAL CONDITIONS

Most of the information provided in this section is summarized from the *Central Plant Area RFI Report* (Malcolm Pirnie, 2003b).

2.1 SUBSURFACE CONDITIONS

2.1.1 Hydrogeology

The upper 100 feet of the subsurface beneath the Site contains clays with sand and gravel channel deposits. There are four hydrostratigraphic units identified to describe the occurrence and movement of groundwater, which is northward and northeastward toward Coleman Avenue. These units are listed below in order of increasing depth.

- The Water Table Zone (WTZ) [ground surface to approximately 18 feet below ground surface], composed of moist to saturated silty clays and clay.
- Fluvial Sand Zone 1 (FS1) [approximately 18 to 33 feet below ground surface], composed of discrete sand channels deposits bounded by silty clays.
- Fluvial Sand Zone 2a (FS2a) [approximately 33 to 45 feet below ground surface], composed of discrete sand channels deposits bounded by silty clays.
- Fluvial Sand Zone 2b (FS2b) [approximately 45 to 70 feet below ground surface], a network of relatively thick sand channel deposits bounded by silty clays.

Groundwater in the WTZ is generally encountered at depths of approximately 5 to 7 feet below ground surface. The fluvial sand zones beneath the WTZ (FS1, FS2a, and FS2b) are fully saturated, buried ancient stream channel deposits, much coarser grained and more permeable than the WTZ materials. These channel deposits vary greatly in aerial extent and thickness. FS1, FS2a, and FS2b are separated by silty clay or clay at least three feet in thickness in most locations.

No surface water bodies are located at the Central Plant Area. The nearest surface water is the Guadalupe River, located approximately one mile north of the Site.

2.1.2 Soil

The primary COCs detected in soil at the Central Plant Area during the RFI were halogenated non-aromatic VOCs (primarily the solvents TCE and 1,1,1-TCA); petroleum hydrocarbons (i.e., total petroleum hydrocarbons [TPH] and its various chemical constituents); and metals. Soil analytical data compared to DTSC-approved RBTLs (Table 1-1) developed for the Site indicated exceedances for hexavalent chromium and manganese in the Central Plant Area. The lateral and vertical extent of these exceedances was delineated. Conservatively, as an interim corrective measure, the soil was excavated at each location where metals exceeded RBTLs and where petroleum hydrocarbons concentrations exceeded 1,000 milligrams per kilogram (Malcolm Pirnie, 2003a). No other COCs in soil were detected at concentrations above the RBTLs.

The maximum concentration of each COC detected in soil at the Site is summarized in Table 2-1. The value for each COC represents the maximum of all historical data for soil that was left in place (not excavated) in the vadose zone (0-5 feet below ground surface). The concentrations shown do not represent average Site conditions.

2.1.3 Groundwater

The primary COCs detected in groundwater above State of California primary drinking water standards—Maximum Contaminant Levels (MCLs)—in the Central Plant Area are: (1) halogenated non-aromatic VOCs, including the solvents TCE and 1,1,1-TCA, related degradation products (e.g., dichloroethene [DCE], dichloroethane [DCA], vinyl chloride, etc.) and solvent additives (e.g., 1,4-dioxane); (2) other miscellaneous VOCs and semivolatile organic compounds (SVOCs); (3) petroleum hydrocarbons including associated aromatic compounds (including BTEX compounds [benzene, toluene, ethylbenzene, and xylenes] and naphthalene) and fuel additives (including methyl tert-butyl ether [MTBE]² and 1,2-DCA); and (4) metals. A complete discussion of groundwater conditions in the Central Plant Area is presented in the *Central Plant Area RFI Report* (Malcolm Pirnie, 2003b) and most recently in the *2005 Groundwater Verification Monitoring Report* (Malcolm Pirnie, 2006).

² The source of MTBE is likely to be offsite, upgradient to the south of the Facility (Malcolm Pirnie, 2005b).

Halogenated non-aromatic VOCs are the most widespread contaminants in groundwater, present mostly in the WTZ, FS1, and FS2a, in various portions of the Central Plant Area. The VOC plumes are generally elongated along the direction of groundwater flow. The majority of the plumes in the FS1, FS2a, and FS2b hydrostratigraphic units are within the permeable sand channel deposits. The maximum concentration of each VOC detected in shallow groundwater (within the WTZ hydrostratigraphic unit) at the Site is summarized in Table 2-2. The values shown represent the maximum of all historical data for shallow groundwater and do not represent average Site conditions.

2.1.4 Soil Gas

The presence and distribution of VOCs in soil gas throughout the Central Plant Area were assessed during the soil gas investigation conducted during 2004 as the final investigation component of the RFI (Malcolm Pirnie, 2005a). The most frequently detected VOCs in soil gas samples were solvents and their biological and abiotic transformation products. Of these chemicals, TCE, followed by 1,1,1-TCA, was detected most often and at the highest concentrations. These findings were used to conduct a vapor intrusion assessment that presented a corresponding estimated cumulative risk assessment for office workers in buildings that may be built on the Site in the future.

The maximum concentration of each VOC detected in soil gas at the Site is summarized in Table 2-3. The data shown do not represent average Site conditions.

2.2 SUMMARY OF PREVIOUS REMEDIAL ACTIVITIES

Four types of DTSC-approved interim measures were implemented between October 1998 and July 2002 for soil and groundwater in the Central Plant Area during the course of the Central Plant Area RFI (Malcolm Pirnie, 2003a). These activities were performed consistent with interim measure requirements in Attachment 5 of the Consent Agreement. These measures were implemented to address releases of hazardous waste and/or hazardous constituents prior to evaluation of alternative final corrective measures through the CMS. Some of the measures, particularly excavations, removed impacted soil where concentrations of individual constituents were above RBTLs. Experience with the interim measures at the Site also assisted in the

selection and evaluation of alternatives for final corrective measures in the CMS Report. The interim measures implemented in the Central Plant Area are listed below.

- **Soil Excavation**—implemented to remove the less mobile contaminants from shallow locations where future construction activities may take place and could potentially expose construction/excavation workers to metals or petroleum hydrocarbons. The excavations successfully reduced the residual concentrations of COCs to less than the soil RBTLs.
- **Dual Phase Extraction (DPE)**—implemented to reduce concentrations of VOCs, specifically TCE, at and near the water table in unsaturated soil and shallow groundwater for protection of construction/excavation workers; and to reduce concentrations of VOCs in order to mitigate further potential impacts to groundwater that could migrate to and beyond the downgradient property boundary. DPE was selected as the appropriate technology, and was able to accomplish removal of approximately 400 pounds of VOCs.
- **In-Situ Chemical Oxidation (ISCO)**—implemented on a pilot basis to destroy diesel fuel hydrocarbons and halogenated VOCs in soil and shallow groundwater by oxidation through the injection of hydrogen peroxide and Fenton's Reagent. ISCO was not carried forward to full-scale implementation due to its failure to achieve significant reductions of diesel hydrocarbons and VOCs in soil (and failure to achieve significant reductions of VOCs in groundwater) during the pilot test. The ineffective results of the technology likely resulted from insufficient contact between the injected material and the VOCs in soil due to the tight nature of the soils and/or the potential creation of preferential pathways as a result of high injection pressures.
- **Hydraulic Groundwater Plume Containment (Extraction and Treatment)**—implemented to control potential migration of halogenated VOCs in groundwater, primarily TCE, at concentrations above MCLs to off-Site areas north of the Central Plant Area. This system continues in operation as part of the DTSC-approved final corrective action remedy.

2.3 SUMMARY OF APPROVED CORRECTIVE ACTION REMEDY SELECTION

A summary of the DTSC-approved final corrective action remedy for the Central Plant Area is as follows.

- Continued extraction of groundwater from existing wells at the northern Site boundary. The extracted groundwater will continue to be treated in an existing activated carbon treatment system to remove VOCs. Treated groundwater will continue to be discharged to a City of San Jose storm drain under a National Pollutant Discharge Elimination System (NPDES) permit issued by the San Francisco Bay Regional Water Quality Control Board.
- Soils with COCs above RBTLs have already been removed from the Site during interim measures; thus, no further action with respect to remediation of soils is required. The removed soils were replaced with clean imported soils.
- DTSC and the City of San Jose will enter into a Land Use Covenant (LUC) that will impose certain restrictions on the Site, including, but not limited to: (1) prohibition of the extraction of groundwater for purposes other than Site remediation, groundwater monitoring, or construction dewatering; (2) limitation of land use to commercial, industrial, research and development, hotel, retail and office purposes only, any other use permitted by Planned Development Zoning Ordinance No. 26958 adopted by the City of San Jose on September 2, 2003, and any other use permitted by any amendment to the Zoning Ordinance that is consistent with the prohibited uses and prohibited activities listed above; (3) requirement that buildings constructed in specific sub-areas of the Site include risk management measures to mitigate possible indoor vapor intrusion, if required by DTSC; and (4) prohibition of the use of the Property to situate residences, schools, hospitals, or day-care centers.

2.4 SUMMARY OF ON-GOING GROUNDWATER MONITORING

The groundwater monitoring program at the Central Plant Area now combines: (1) Site-wide monitoring to assess groundwater quality; and (2) verification monitoring of the hydraulic containment system (the Groundwater Extraction and Treatment System) located at the



downgradient (northern) property boundary. The extraction of groundwater at the property boundary and treatment and discharge of the extracted groundwater, together with the groundwater monitoring system, constitutes the approved final corrective action remedy for groundwater. This groundwater monitoring program is described in the *Central Plant Area Amended Groundwater Monitoring Plan* (Malcolm Pirnie, 2004b) and the *2005 Annual Groundwater Verification Monitoring Report* (Malcolm Pirnie, 2006). Biannual monitoring of groundwater monitoring wells for collection and analysis of groundwater samples and/or measurement of depth to groundwater is conducted in April and October. The locations of the Groundwater Extraction and Treatment System, conveyance piping, and monitoring and extraction wells are shown on Figure 2-1.



3.0 SUMMARY OF LAND USE RESTRICTIONS

Land use restrictions are the institutional controls required as part of the corrective action remedy to limit potential exposures to future Site owner(s) and/or user(s) and/or occupants, and to maintain the effectiveness of the corrective action. These institutional controls are designed to limit exposures to remaining COCs to protect human health and the environment. These restrictions will be imposed through a Land Use Covenant (LUC) to be executed by the City of San Jose, as property owner, and DTSC, and recorded in the official records of the County of Santa Clara, and are described in detail in the *LUC Implementation & Enforcement Plan* (DTSC, 2006a). The restrictions are summarized in this section.

3.1 SITE-WIDE LAND USE RESTRICTIONS

The following land uses will be prohibited at the Central Plant Area: residences for human occupation; hospitals for humans; schools for persons under 21 years of age; and day care centers for children. Additionally, the following activities will be prohibited: raising of cattle, food crops, or agricultural products; drilling for water, oil, or gas; extraction of groundwater for purposes other than Site remediation, groundwater monitoring, or construction dewatering; and activities that may interfere with the selected correction action remedy or operation and maintenance activities required for the Central Plant Area. The use of the Central Plant Area shall be restricted to commercial, industrial, research and development, hotel, retail and office purposes only, any other use permitted by Planned Development Zoning Ordinance No. 26958, adopted by the City of San Jose on September 2, 2003, and any other use permitted by any amendment to the Zoning Ordinance that is consistent with the prohibited uses and prohibited activities listed above.

Engineering controls, such as wind erosion control and dust suppression by watering, must be implemented during construction activities to minimize or mitigate potential exposure of off-Site residents and on-Site workers to COCs in soil via pathways such as inhalation of impacted dust and direct contact after deposition of impacted dust.

Any soils brought to the surface by grading, excavation, trenching, backfilling, or other activity shall be managed in accordance with all applicable provisions of: (1) state and federal



law; (2) this Soil Management Plan; and (3) Health and Safety Plans that will address potential construction worker exposure situations during demolition and redevelopment activities, and long-term property occupation and maintenance.

DTSC shall have reasonable right of entry and access to the Central Plant Area for inspections and other activities consistent with the purposes of enforcing the Land Use Covenant, as deemed necessary by the Department in order to protect public health or safety, or the environment. The entity or person responsible for implementing the operation and maintenance of the Groundwater Extraction and Treatment System shall have reasonable right of entry and access to the Central Plant Area for the purpose of operation and maintenance requirements (or activities) for the remedy, consistent with the Easement Agreement between FMC and the City of San Jose, until such time as DTSC determines that no further operation and maintenance is required.

Cover in the form of buildings, concrete or asphalt paving, landscaping or other vegetation, clean soil from off-Site, or other suitable cover such as at least six inches of loose gravel or soil will be maintained at the Site to mitigate direct exposure, unless otherwise approved by DTSC.

3.2 GROUNDWATER EXTRACTION AND TREATMENT SYSTEM MAINTENANCE

The integrity and physical accessibility of the Groundwater Extraction and Treatment System, groundwater extraction and monitoring wells, and conveyance piping shall be maintained (Figure 2-1).

3.3 FUTURE BUILDINGS IN RESTRICTED AREAS

Any new buildings constructed within the areas totaling 5.5 acres shown on Figure 3-1 may be required by DTSC to incorporate risk management measures to mitigate possible intrusion of residual VOCs in the vapor phase into such buildings for the protection of future indoor office workers.



4.0 GUIDELINES FOR HEALTH AND SAFETY

Two separate Health and Safety Plans (HASPs) as described below will be prepared for the Site by the property owner and/or their contractor/developer. These plans will comply with applicable guidelines of the California Occupational Safety and Health Administration (Cal-OSHA).

The first HASP, which will be prepared by the property owner and/or their contractor/developer, will address potential construction worker exposure situations during demolition and redevelopment activities at the Site. The primary routes of potential exposure are inhalation of dust and soil gas, and dermal contact with soil and/or groundwater. This HASP will be in accordance with the City of San Jose's EIR for the Site (City of San Jose, 2003) (an "Integrated Environmental Safety and Health Plan (IESHP)"), and will be prepared at the time specific development plans are proposed. It will include a means for monitoring hazardous substances in soil and buildings that are to be demolished; assess and prioritize risks associated with each potential hazard; develop measures to minimize risk to workers and the public by controlling airborne emissions; provide for coordination with DTSC and the Bay Area Air Quality Management District (BAAQMD), and other agencies, as needed; and control emissions of ordinary particulate matter or airborne dirt that would not be classified as "hazardous." A Health and Safety Officer designated in the HASP will be responsible for the implementation of the HASP and this Soil Management Plan during all construction activities.

The second HASP, which will be prepared by the property owner and/or their contractor after the construction phase is complete, will address long-term Site occupation and maintenance during which landscape and other maintenance workers could be exposed to soil. This HASP will address mitigation measures to control such potential exposures after the construction phase.

5.0 MANAGEMENT PROCEDURES FOR SOIL, SOIL GAS, AND GROUNDWATER

5.1 MANAGEMENT DURING SITE DEMOLITION AND CONSTRUCTION

Guidelines for soil and groundwater handling during demolition and construction activities are discussed in this Section. Extensive sampling of soil, groundwater, and soil gas at the Site has been previously conducted, and known environmental conditions have been documented in various reports referenced in this Plan. Known residual concentrations of COCs are below the RBTLs (Table 1-1). However, if during demolition or construction activities, the presence of COCs above RBTLs is suspected to exist based on soil or groundwater characterization results (Section 5.1.2), or based on visual or olfactory observation³, the property owner will immediately contact DTSC to determine if additional investigation is needed to assess its nature and extent.

Demolition and construction workers who may contact soil and groundwater impacted with hazardous substances at concentrations exceeding residential health-based standards, including hazardous wastes, must be trained pursuant to 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response [HAZWOPER]). The Site owner, at the time of demolition or construction, or any legal occupant of all or a portion of the Site with the authority to undertake demolition or construction activities, or the designated agents for such owner or occupant, who in each case retain contractor or sub-contractor services, will inform those contractors, sub-contractors, or their representatives of known environmental conditions in areas where demolition and/or construction activities will occur. They will also be informed of the Site emergency response procedures related to any potential fire explosion, health, safety or other hazards that might be associated with the presence of COCs. The known environmental conditions and the Site emergency response procedures will be components of the first HASP described in Section 4.

³ This will be a judgment by an on-Site environmental professional.

5.1.1 Existing Cover Removal

Building foundations, asphalt and concrete pavement, and landscaping may be removed from the Site. The City of San Jose has proposed the use of an on-Site concrete crusher, with required permits from the BAAQMD and the City of San Jose and associated dust emissions reduction measures for demolition activities (City of San Jose, 2003). Care will be taken to minimize dust generation as discussed in Section 5.1.6. Soil will be removed from the under-side of demolished concrete slabs, foundations, and asphalt pavement prior to on-Site reuse or off-Site disposal, and prior to concrete crushing. This soil will be stockpiled and managed in the same way as soil that is excavated as discussed in Section 5.1.2.

5.1.2 Soil Excavation

All excavated soil will be stockpiled on-Site to determine if it can be reused on-Site or will require off-Site disposal. The property owner will characterize all excavated soil by sampling and analysis with then-current lab methods for VOCs (currently USEPA Method 8260B), for 1,4-dioxane (currently USEPA Method 8270C SIM), for Title 22 metals (currently USEPA Method 6010B), for TPH quantified as gasoline, diesel, and motor oil (currently USEPA Method 8015M), and any other COCs as deemed appropriate based on history of environmental investigations in the area of the excavation. All handling of excavated soils will be consistent with Regulation 8, Rule 40 of the BAAQMD in order to limit/control the potential emission of organic compounds to ambient air from the soil pile.

If the analytical results indicate that concentrations of COCs in the sample(s) of excavated soil exceed the RBTLs, the property owner will report this information to DTSC. Such soil will be stockpiled separately and characterized appropriately for off-Site disposal (Section 5.1.5). If COCs in the excavated soil are below RBTLs, and the soil is not required to be managed as hazardous waste, and not required to be disposed off-Site, it may be reused on-Site, as discussed in Section 5.1.4.

5.1.3 Stockpiling

Stockpiles of soil, debris, sand, or other material that can be blown by the wind will be covered by plastic sheeting or other appropriate cover to protect it from dust generation and exposure to rainfall to prevent runoff. Sheeting will be anchored to prevent it from being blown



off or torn. Access to areas used for stockpiling soil will be limited by fencing or other suitable means. Any fencing placed around soil piles to restrict access should be placarded, indicating that the enclosure contains soil potentially contaminated with hazardous substances. All stockpiling of soil will also follow applicable portions of Regulation 8, Rule 40 of the BAAQMD.

5.1.4 On-Site Reuse of Soil

If possible, excavated soil will be reused on-Site based on characterization results (Section 5.1.2). The characterization of such soil will be consistent with San Francisco Bay RWQCB's draft technical reference document *Characterization and Reuse of Petroleum Hydrocarbon Impacted Soil as Inert Waste* dated October 20, 2006 or subsequent revised version, and will be reviewed and approved by the RWQCB prior to reuse. Reused soil is required to be placed beneath at least six inches of clean materials, as provided in Section 4.05 of the LUC, in landscaped areas or beneath buildings, parking lots, and roads. Soil generated during pre-drilling of building foundation piles should be incorporated into that building's sub-grade.

5.1.5 Off-Site Soil Disposal

Excavated soil that is determined to be unsuitable for on-Site reuse based on characterization results will be disposed off-Site. Any soil to be disposed off-Site will be further characterized for disposal purposes in accordance with the specific off-Site disposal facility's requirements including those for the number of samples, analytical methods, etc. All trucks hauling soil to an off-Site disposal facility will be covered or have at least two feet of freeboard (City of San Jose, 2003).

5.1.6 Dust Control

During all earth moving, trenching, grading, concrete crushing, and excavation activities, provisions will be made to control fugitive dust generation, including regular watering of ground surface (possibly with effluent water from the Groundwater Extraction and Treatment System [shown on Figure 2-1]); regular cleaning and/or damp sweeping of paved areas on-Site; and planting any uncovered areas to be left vacant for extensive periods of time (City of San Jose, 2003). All active construction areas will be wetted at least twice daily and all unpaved access roads, parking areas, and staging areas will be paved, wetted, or stabilized by application of non-



toxic soil stabilizers (City of San Jose, 2003). Wetting will not be so extensive as to cause runoff. The Health and Safety Officer designated in the HASP addressing construction operations (Section 4) will monitor for dust and for potential VOC off-gassing (using a Photoionization Detector, or equivalent).

Neighbors that may be affected by dust generation will be given the owner's and/or developer's contact information in case a dust issue arises on their property.

5.1.7 Excavation Dewatering

Standing water removed from excavations will be transferred to the on-Site groundwater treatment unit (part of the Groundwater Extraction and Treatment System shown on Figure 2-1) if possible. To ensure appropriate removal of sediment or other necessary pre-treatment of such water, the entity or person responsible for implementing the operation and maintenance of the Groundwater Extraction and Treatment System will be contacted prior to performing any excavations below the water table (i.e., 5 feet or more below ground surface) and where water removal is a possibility, and the entity or person previously noted will be notified if any excavation water is planned to be discharged to the on-Site groundwater treatment unit. The same procedure will be followed if any other types of subsurface dewatering is planned (i.e., via groundwater extraction wells for dewatering). Any treatment and discharge of water from the on-Site water treatment unit is discretionary and subject to the approval of the entity or person previously noted and the relevant environmental regulatory agencies (i.e., DTSC and the San Francisco Bay Regional Water Quality Control Board).

In the event the on-Site groundwater treatment unit cannot accept such groundwater, preparations will be made to remove, store, characterize, and properly dispose of the water. Appropriate precautions may include having a temporary storage tank on-Site.

5.1.8 Site Access

Access to areas where the soil cover has been removed or soil is exposed will be limited via a fence surrounding the entire Site or a fence surrounding construction and associated soil and stockpile areas. Gravel will be used on on-Site access roads when possible. All trucks hauling material from the Site will be covered, or maintained with two or more feet of freeboard. Access to the Groundwater Extraction and Treatment System, groundwater extraction and



monitoring wells, and conveyance piping will be maintained at all times to allow for monitoring and maintenance.

5.1.9 Site Cover

As stated in Section 3.1 and set forth as a restriction in the LUC, buildings, concrete or asphalt paving, landscaping or other vegetation, clean soil from off-Site, or other suitable cover consisting of at least six inches of loose coverings of clean material such as soil or gravel will be maintained at the Site to mitigate direct exposure, unless otherwise approved by DTSC.

5.2 LONG-TERM IMPACTED MEDIA MANAGEMENT

Procedures implemented after Site demolition and construction are considered long-term management procedures for impacted media. Guidelines presented below are for disturbance of Site cover and underlying soil, the operation and maintenance of the Groundwater Extraction and Treatment System and construction of buildings within the restricted areas on the Site (Figure 3-1).

5.2.1 Future Disturbance of Cover and Underlying Soil

The property owner must contact FMC and DTSC prior to all soil disturbances except for those activities which are only intended to disturb clean soil covers (e.g., landscaped areas). Procedures described in Section 5.1 will be followed for activities that affect soil or disturb the property cover that will be in place under the LUC.

5.2.2 Groundwater Extraction and Treatment System Maintenance

As stated in Section 3.1, the entity or person responsible for implementing the operation and maintenance of the Groundwater Extraction and Treatment System shall have reasonable right of entry and access to the Central Plant Area for the purpose of operation and maintenance requirements (or activities) for the remedy, including the groundwater monitoring system, consistent with the Easement Agreement between FMC and the City of San Jose, until such time as DTSC determines that no further operation and maintenance is required. The remediation map (Figure 2-1) should be reviewed prior to any digging to confirm the location of the Groundwater Extraction and Treatment System, associated conveyance piping, and groundwater extraction and monitoring wells to avoid any disturbances.

5.2.3 Protection of Occupants in Restricted Areas

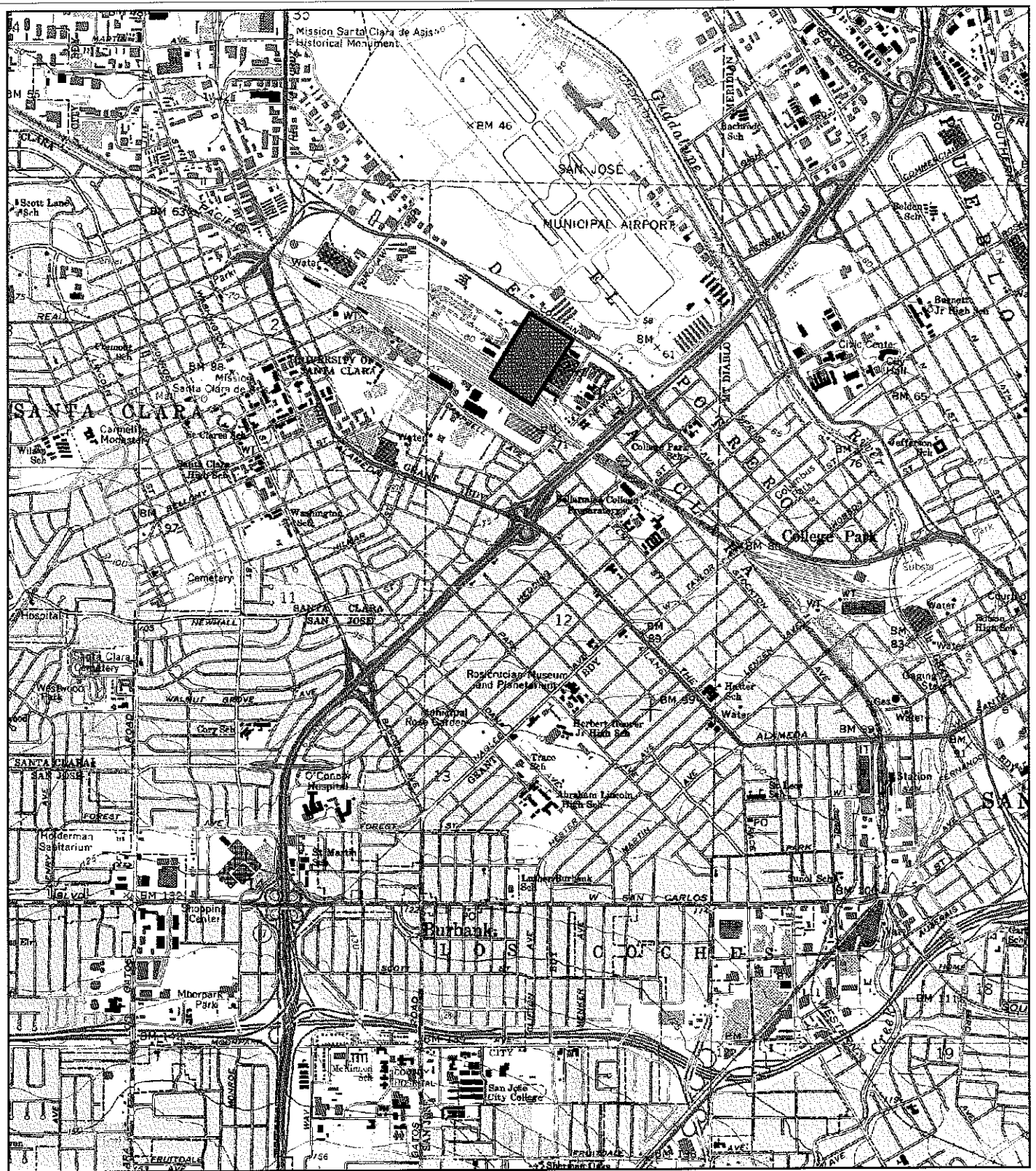
As stated in Section 3.3 and shown on Figure 3-1, new buildings constructed within three areas of the Site (5.5 acres total) may be required to incorporate risk management measures to mitigate possible vapor intrusion into such buildings for the protection of future indoor office workers. The Property owner or occupant, or contractor for the owner or occupant, will contact DTSC concerning the need for risk management measures and the nature of such measures before constructing a building that will be occupied by humans in any of these three areas of the Site.



6.0 REFERENCES

- City of San Jose, 2003. Final Environmental Impact Report. FMC/Coleman Avenue Planned Development Rezoning (PDC98-104). SCH#1999122059. September 2003.
- DTSC, 2006a. Land-Use Covenant Implementation & Enforcement Plan FMC Corporation – Central Plant Area, 1125 Coleman Avenue, San Jose. February 2006.
- DTSC, 2006b. Approval of Corrective Action Remedy Selection, Central Plant Area, FMC Corporation, 1125 Coleman Avenue, San Jose, California, 95110, EPA ID No CAD077184745. Letter dated April 20, 2006.
- Malcolm Pirnie, 2003a. Soil Interim Measure Completion Report Excavation of Petroleum Hydrocarbon and Metal Impacted Soil in the Central Plant Area, FMC Corporation, 1125 Coleman Avenue, San Jose, California. June 2003.
- Malcolm Pirnie, 2003b. Central Plant Area RCRA Facility Investigation Report, FMC Corporation, 1125 Coleman Avenue, San Jose, California. August 2003.
- Malcolm Pirnie, 2004a. Central Plant Area RCRA Facility Investigation Report Addendum, FMC Corporation, 1125 Coleman Avenue, San Jose, California. August 2004.
- Malcolm Pirnie, 2004b. Amended Groundwater Monitoring Plan, Central Plant Area, FMC Corporation, 1125 Coleman Avenue, San Jose, Santa Clara County, California. September 2004.
- Malcolm Pirnie, 2005a. 2004 Soil Gas Investigation and Vapor Intrusion Assessment Report, Central Plant Area, FMC Corporation, 1125 Coleman Avenue, San Jose, Santa Clara County, California. January 2005.
- Malcolm Pirnie, 2005b. Corrective Measures Study Report, Central Plant Area, FMC Corporation, 1125 Coleman Avenue, San Jose, Santa Clara County, California. September 2005.
- Malcolm Pirnie, 2006. 2005 Groundwater Verification Monitoring Report Central Plant Area, FMC Corporation, 1125 Coleman Avenue, San Jose, California. March 2006.





Legend



Central Plant Area Location



3,500 1,750 0
Feet

MALCOLM
PIRNIE

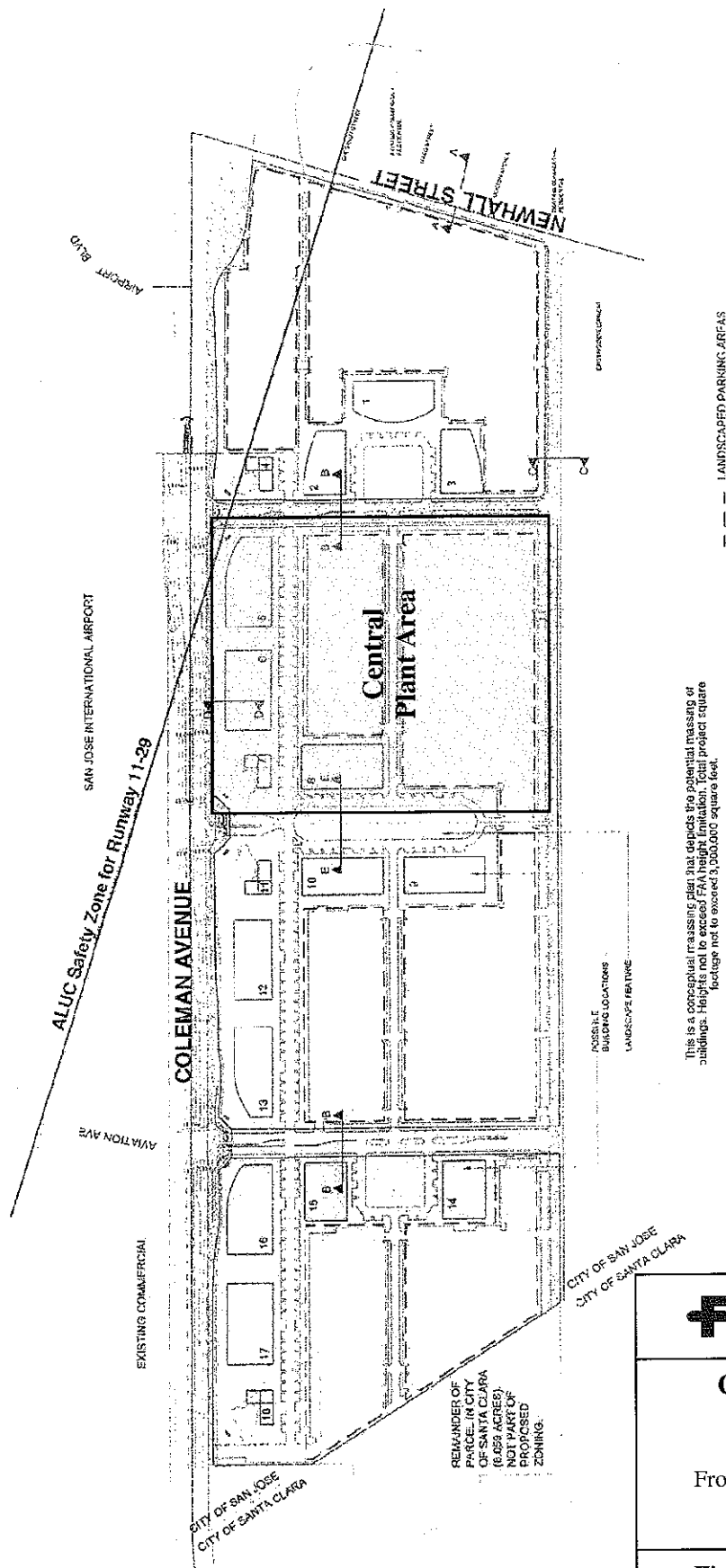
FMC

1125 Coleman Avenue
San Jose, California

Site Location Map
Soil Management Plan
Central Plant Area

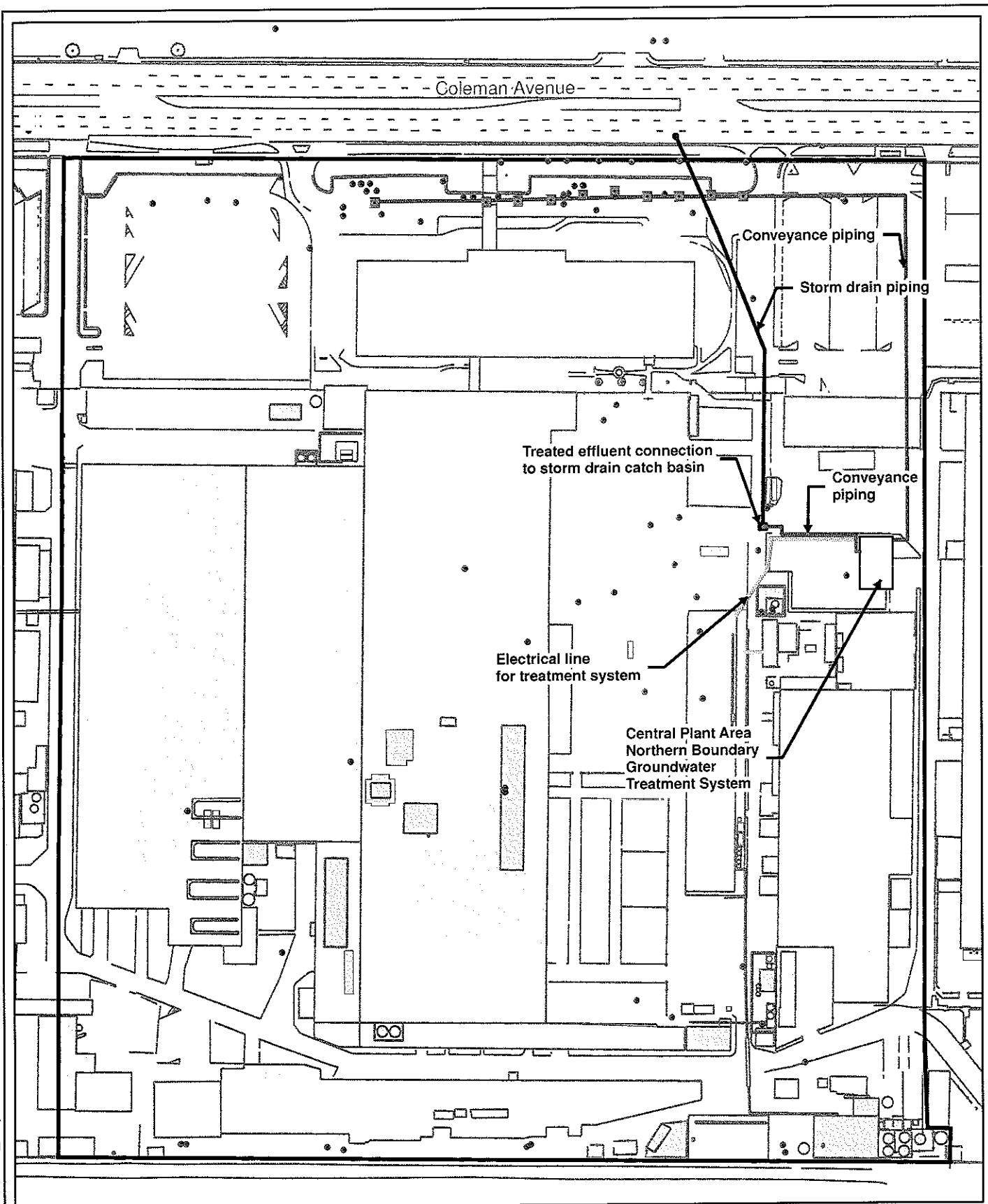
Figure 1-1

December 2006



Note: Figure is not to scale.

FMC	1125 Coleman Avenue San Jose, California
<p align="center"> Conceptual Master Site Plan Soil Management Plan Central Plant Area From Final Environmental Impact Report (City of San Jose, 2003) </p>	
Figure 1-2	December 2006



Legend

- Groundwater Extraction Well (10)
- Groundwater Monitoring Location (76)



175 87.5 0 175 Feet

**MALCOLM
PIRRIE**

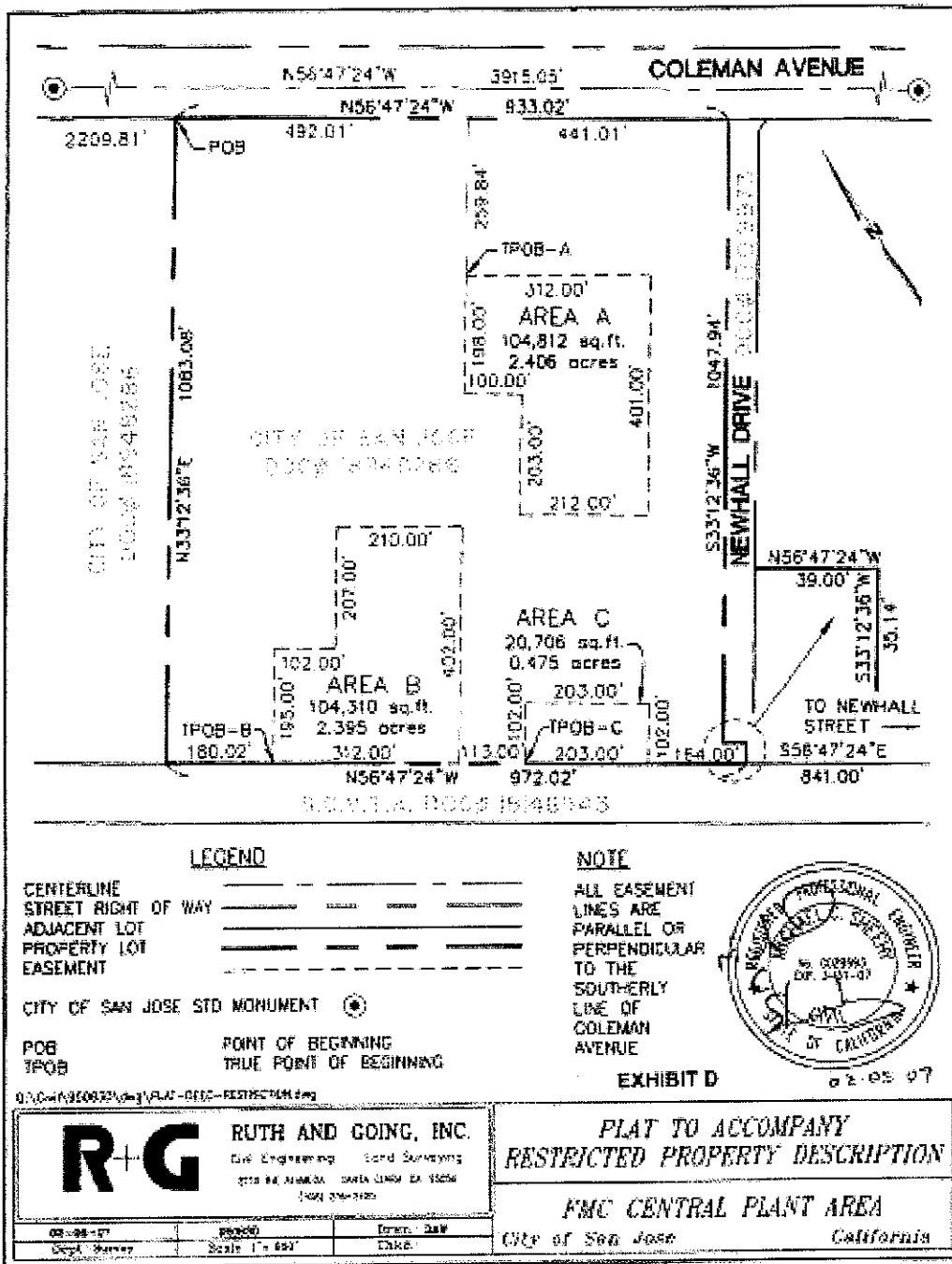
FMC

1125 Coleman Avenue
San Jose, California

Groundwater Extraction and Treatment
System, Piping, and Wells
Soil Management Plan
Central Plant Area

Figure 2-1

February 2007



	1125 Coleman Avenue San Jose, California	
	<p align="center">Restricted Areas Soil Management Plan Central Plant Area</p> <p align="center">From Covenant to Restrict Use of Property (May 8, 2007)</p>	
	<table border="1"> <tr> <td>Figure 3-1</td> <td>July 2007</td> </tr> </table>	Figure 3-1
Figure 3-1	July 2007	

Table 1-1
Soil and Groundwater Risk-Based Threshold Limits
Soil Management Plan
Central Plant Area, FMC Corporation
1125 Coleman Avenue
San Jose, Santa Clara County, California

CONSTITUENTS	Groundwater ^{1,2} (mg/L)		Soil ^{1,3} (mg/kg)	
	Original (1999)	Revised	Original (1999)	Revised
VOCs				
1,1,1-Trichloroethane	61	430	890 ^c	
1,1,2,2-Tetrachloroethane	-	-	31	
1,1,2-Trichloroethane	4.3	3.3	95	
1,1-Dichloroethane	41	35	370	
1,1-Dichloroethene	16	63	150	
1,2-Dichlorobenzene	43	nc	420 ^c	
1,2-Dichloroethane	5.5	7.5	45	
1,4-dioxane	-	210	-	
2-Butanone	-	-	1,800 ^c	
Acetone	-	-	3,900	
Benzene	0.98	nc	27	
Carbon Disulfide	-	-	600 ^c	
Carbon Tetrachloride	0.62	nc	-	
Chloroethane	1,500	74	910	
Chloroform	7.5	nc	120	
Chloromethane	-	-	120	
cis-1,2-Dichloroethene	55	55	380	
Dichlorodifluoromethane	280 ^a	nc	-	
Ethylbenzene	40	nc	280 ^c	
m,p-Xylenes	170 ^a	nc	310 ^c	
Methylene Chloride	33	nc	380	
o-Xylenes	180 ^a	nc	290 ^c	
Tetrachloroethene	0.84	0.08	100	
Toluene	130	nc	470 ^c	
Total Xylenes	160 ^a	nc	300 ^c	
trans-1,2-Dichloroethene	59	59	620	
Trichloroethene	8.6	9.0	290	
Vinyl Chloride	1.0	0.43	1.7	
SVOCs				
2-Methylnaphthalene	8.5	nc	180 ^c	
4-chloro-3-Methylphenol	29,000 ^a	nc	1,000	
Benzoic Acid	3,500 ^a	nc	-	
Benzyl Alcohol	1,500	nc	12,000 ^c	
Bis(2-ethylhexyl)phthalate	0.34 ^a	nc	1,800	
di-n-Octylphthalate	-	-	4,200	
Naphthalene	8.5	nc	260 ^c	
Phenanthrene	1.0 ^a	nc	59 ^c	
Phenol	3,200	nc	17,000 ^c	

Table 1-1
Soil and Groundwater Risk-Based Threshold Limits
Soil Management Plan
Central Plant Area, FMC Corporation
1125 Coleman Avenue
San Jose, Santa Clara County, California

CONSTITUENTS	Groundwater ^{1, 2} (mg/L)		Soil ^{1, 3} (mg/kg)	
	Original (1999)	Revised	Original (1999)	Revised
Metals				
Aluminum	15,000	nc	-	
Antimony	5.9	5.9	440	
Arsenic	0.69	0.11	75	
Barium	1,000	2,900	12,000	
Beryllium	0.15	29	11	
Boron	1,300	nc	84,000	
Cadmium	15	5.4	320	
Chromium III	15,000	22,000	100,000 ^d	
Hexavalent Chromium	2.5	nc	13	
Cobalt	4,400	1,500	580	
Copper	550	540	41,000	
Lead	^b	-	2,800	
Manganese	4,100	nc	8,250	
Mercury	2.9	8.8	110	
Molybdenum	74	74	5,500	
Nickel	5,900	5,900	5,800	
Selenium	74	74	5,500	
Silver	250	nc	5,500	
Thallium	1.2	1.2	88	
Titanium	59,000	nc	-	
Vanadium	100	15	7,700	
Zinc	15,000	15,000	100,000 ^d	
General Chemicals				
Cyanide	74	nc	5,500	

¹ Target risk concentrations correspond to a cancer risk of 1 in 1,000,000 or a non-carcinogenic hazard index of one for the exposure pathways being evaluated.

² The RBTL is the lower of the target risk concentrations for carcinogenic and non-carcinogenic effects, unless they exceed the water solubility, in which case the RBTL is set at the water solubility concentration.

³ The RBTL is the lower of the target risk concentrations for carcinogenic and non-carcinogenic effects, unless they exceed the soil saturation, in which case the RBTL is set at the soil saturation concentration.

^a Indicates RBTL exceeded pure component water solubility, and hence, the water solubility is listed as the RBTL.

^b No RBTL was calculated because there are no USEPA-verified toxicity values for lead.

^c Indicates RBTL exceeded pure component soil saturation, and hence the soil saturation is listed as the RBTL.

^d Indicates the calculated RBTL exceeded the ceiling limit of 10% by mass thus the RBTL was set at 10%.

- Not computed since no detections of constituent were reported at time of RBTL development.

nc Not computed for cumulative risk assessment (not necessary - not included in cumulative assessment).

Table 2-1

Maximum Concentrations of Constituents Remaining in Soil (Vadose Zone)
Soil Management Plan
Central Plant Area, FMC Corporation, 1125 Coleman Avenue, San Jose, Santa Clara
County, California

Parameter	Soil Maximum in Place (mg/kg)
Volatile Organic Compounds	
1,1,1-Trichloroethane	24
1,1,2-Trichloroethane	0.00508
1,1-Dichloroethane	0.94
1,1-Dichloroethene	0.81
1,2-Dichloroethane	0.0148
2-Butanone	0.077
Acetone	0.61
Benzene	0.001
Carbon Disulfide	0.00087
Chloroethane	0.0148
Chloroform	0.00348
cis-1,2-Dichloroethene	1.12
Ethylbenzene	14
Methylene Chloride	0.021
Tetrachloroethene	1.4
Toluene	1.9
Total Xylenes	53
trans-1,2-Dichloroethene	0.042
Trichloroethene	7.4
Vinyl Chloride	0.0293
Semivolatile Organic Compounds	
4-chloro-3-Methylphenol	0.92
Benzyl Alcohol	0.49
Bis(2-ethylhexyl)phthalate	0.33
Phenol	0.15
Metals	
Antimony	5
Arsenic	42.8
Barium	1,130
Beryllium	1.2
Boron	26.5
Cadmium	3.6
Chromium III	187
Hexavalent Chromium	3.3
Cobalt	35.4
Copper	276
Lead	72
Manganese	6,300
Mercury	0.2
Molybdenum	6.3
Nickel	497
Selenium	4.5
Silver	0.59
Thallium	34
Vanadium	82
Zinc	111

Notes:

mg/kg = milligram per kilogram

Table 2-2
Maximum Concentrations of Volatile Organic Compounds Detected in Water Table
Zone Groundwater
Soil Management Plan
Central Plant Area, FMC Corporation, 1125 Coleman Avenue, San Jose, Santa Clara
County, California

Parameter	Groundwater Maximum (ug/L)
1,1,1-Trichloroethane	76,000
1,1,2-Trichloroethane	26
1,1-Dichloroethane	2,100
1,1-Dichloroethene	4,200
1,2,3-Trichlorobenzene	10
1,2-Dichlorobenzene	1.17
1,2-Dichloroethane	96
1,2-Dichloroethene	96
1,4-Dioxane	620
2-Hexanone	67
4-Methyl-2-pentanone (MIBK)	2.67
Benzene	140
Bromodichloromethane	48
Bromoform	250
Carbon disulfide	4.4
Carbon tetrachloride	1.3
Chlorobenzene	170
Chloroethane	78
Chloroform	25
cis-1,2-Dichloroethene	4,300
Ethylbenzene	5.7
Methylene Chloride	143
Naphthalene	1
Tetrachloroethene	320
Toluene	150
Total Xylenes	23
trans-1,2-Dichloroethene	120
Trichloroethene	60,000
Vinyl acetate	318
Vinyl chloride	800

Notes:
ug/L = microgram per liter

Table 2-3
Maximum Concentrations of Volatile Organic Compounds Detected in Soil Gas
Soil Management Plan
Central Plant Area, FMC Corporation, 1125 Coleman Avenue, San Jose, Santa Clara County,
California

Parameter	Soil Gas Maximum (ug/m³)
1,1,1-Trichloroethane	220,000
1,1,2-Trichloroethane	28
1,1-Dichloroethane	320,000
1,1-Dichloroethene	35,000
1,2,4-Trimethylbenzene	580
1,2-Dichloroethane	600
1,3,5-Trimethylbenzene	440
1,3-Butadiene	150
2,2,4-Trimethylpentane	1,100
2-Butanone (Methyl Ethyl Ketone)	4,800
2-Hexanone	230
2-Propanol	340
4-Ethyltoluene	910
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	55
Acetone	7,800
Benzene	740
Bromodichloromethane	14
Bromomethane	4.2
Butane	26
Carbon Disulfide	590
Chloroethane	1,900
Chloroform	140
Chloromethane	26
cis-1,2-Dichloroethene	460,000
Cumene (Isopropylbenzene)	67
Cyclohexane	4,300
Ethanol	3,500
Ethyl Benzene	790
Freon 11 (Trichlorofluoromethane)	2,100
Freon 113 (Trichlorotrifluoroethane)	1,300
Freon 12 (Dichlorodifluoromethane)	6.7
Heptane	1,800
Hexane	8,600
m,p-Xylene	8,500
Methyl tert-butyl ether (MTBE)	29
Methylene Chloride	250
o-Xylene	960
Propylbenzene	330
Styrene	5.9
Tetrachloroethene	180,000
Tetrahydrofuran	330
Toluene	9,900
trans-1,2-Dichloroethene	10,000
Trichloroethene	460,000
Vinyl Chloride	3,900

Notes:

(ug/m³) = micrograms per cubic meter